# Vigilant
The Journal of the 143rd

*143rd Composite Squadron, Waterbury, CT* — *MAR 2012*


## Squadron Schedule

**03APR12 Squadron Meeting**
ES/Safety/Character Dev.
Uniform: BDU/Polo

**10APR12 Squadron Meeting**
AE
Uniform: BDU/Polo

**14APR12 CTWG ES Training Exercise**
Location TBD
Uniform: BDU/Polo

**17APR12 Squadron Meeting**
CPFT/Fitness Activity
Uniform: PT/BDU/Polo

**21APR12 Earth Day Parking Detail**
Woodbury, CT
Uniform: BDU/Polo

**24APR12 Squadron Meeting**
Leadership
Uniform: Blues/Corporate

**29APR12 Glider O Flights**
Springfield, VT
Uniform: BDU/Polo

**01MAY12 Squadron Meeting**
ES/Safety/Character Dev.
Uniform: BDU/Polo

**04MAY12 NYWG Conference**
Lake George, NY

**08MAY12 Squadron Meeting**
ES/Safety/Character Dev.
Uniform: BDU/Polo

**15MAY12 Squadron Meeting**
AE
Uniform: BDU/Polo

**19MAY12 USAF Air Evac Exercise**
Westover ARB, Chickopee, MA
Uniform: BDU/Polo

**22MAY12 Squadron Meeting**
CPFT/Fitness Activity
Uniform: PT/BDU/Polo

**29MAY12 Squadron Meeting**
Leadership
Uniform: Blues/Corporate

## C/MSgt Moore Spots Forest Fire

Members of the Waterbury squadron were on a routine ferry flight from one airport to another when C/MSgt Devin Moore spotted several plumes of smoke on a mountain top near the Prospect and Cheshire line. After circling several times the crew determined that action must be taken since the fire covered a large area and was spreading. Captain Dan Hanle, Pilot in Command, radioed the coordinates to the Waterbury-Oxford tower.and asked that the tower contact the proper authorities. The plane stayed in the area until they saw the fire fighters respond. Lt. James Keaney, the squadrons photographer and public affairs officer, was also on board and took arial photos of the scene.

Upon landing their plane in Danbury, the crew learned the fire was in the jurisdiction of Prospect near the area of Cornwall Ave. on top of the mountain. The crew stopped at the Prospect fire house later to ask how the containment efforts were going. Cadet Moore was congratulated by the Prospect Fire Marshall Keith Griffin and firefighter Bob Scanlon for spotting the smoke and fire.

*The fire from the point it was first spotted by Cadet Moore.*

The firefighters expressed their gratitude to the Civil Air Patrol for their timely efforts. They estimated that the fire would have burned at least another 40 or 50 acres of forest before anyone on the ground would have realized there was a fire.

*Prospect Fire Marshall Keith Griffin shows Cadet Moore the fire log for this event.*


*C/MSgt Devin Moore witn Prospect Fire Marshall Keith Griffin (r.) and Firefighter Bob Scanlon (l.).*

### The 143rd Composite Squadron

**Squadron Commander:** Maj Timothy McCandless
**Deputy Commander for Seniors:** Lt Col Richard Levitt
**Deputy Commander for Cadets:** Maj Joseph Palys
**Cadet Commander:** C/Capt Eric Testman
**Cadet First Sergeant:** C/CMSgt Cameron Foster

**Regular Meetings every Tuesday 7-9pm**
**Connecticut National Guard Armory**
**64 Field Street, Waterbury, Connecticut**

**www.gocivilairpatrol.com**

# Cadet Great Start Weekend

## Cadets Learn Basic Skills at The Connecticut Army National Guard Training Facility

The 143rd Composite Squadron again teamed up with The 103rd Composite Squadron and The Thames River Composite Squadron to conduct a Cadet Great Start weekend at Camp Niantic in Niantic, CT.

Cadets learned about all aspects of the cadet program including drill and ceremonies, customs and courtesies, uniform wear, followership, and Aerospace Education.

Most of the classes were taught by the Cadet Officers and NCOs that volunteered to be on staff. C/Maj McCandless, C/CMSgt Major and C/CMSgt Schultz again took charge of the mess hall and with some help from the senior staff again provided great meals.

Since the squadron had reserved the barracks and classrooms at Camp Niantic there were two concurrent activities planned for this event. CTWG Cadet Programs Staff hosted a Training Leaders of Cadets class and The New Fairfield Cadet Squadron Color Guard, who recently won the CTWG Color Guard Competition, took advantage of the weekend to practice for the Northeast Region Competition.

*Cadets listen to a Character Development Forum focusing on CAP Core Values presented by 1st Lt Jonathan Luysterborghs.*

*Cadets enjoy corned beef, cabbage and potatoes for dinner on Saturday night to celebrate St. Patrick's Day.*

*Cadets practice drill and ceremonies on the Camp Niantic parade field.*

*Cadets stayed in the barracks at Camp Niantic.*

*The mess hall cadet staff in action.*

*C/2nd Lt Hocutt congratulates C/1st Lt Wojtcuk on being selected Honor Cadet Officer for the event. C/1st Lt Wojtcuk served as Cadet Safety Officer.*

*C/2nd Lt Hocutt congratulates C/CMSgt Daniels on being selected Honor Cadet NCO for the event. C/CMSgt Daniels served as Cadet First Sergeant.*

*C/2nd Lt Hocutt congratulates Cadet Zachariah Brandes-Powell on being selected Honor Cadet for the event.*

*Members of the New Fairfield Cadet Squadron Color Guard celebrated C/CMSgt Caniero's birthday during the weekend.*

# Squadron Training

## The Challange of Two Curriculums

As a Composite Squadron, the 143rd has the challange of planning and conducting both a senior and cadet program that are interesting and engaging. As Squadron Commander, Maj McCandless oversees and coordinates the effort to plan squadron meetings and activities that fufill all aspects of the CAP program.

Lt Col Levitt, Deputy Commander for Seniors, ensures that senior members are provided with opportunities to progress in the CAP professional development program, learn Emergency Services skills and have the time and resources to fulfill the tasks of their Squadron Duty Positions.

As Deputy Commander for Cadets, Maj Palys oversees the cadet program. Cadet meetings focus one night per month on Emergency Services, Aerospace Education, Physical Fitness and Leadership training. Cadet meetings are planned by the Cadet Staff and supported by the Senior Staff.

*Lt Col Tony Vallillo, CTWG Standards and Evaluation Officer, leads a class on Aircraft GPS Operations in classroom one.*

*Maj McCandless leads a Character Development Forum in classroom two.*

# March Awards

The following members of the 143rd Composite Squadron were earned awards in March:

**Matthew Belval** has been awarded the Red Service Ribbon for two years of service to CAP.

**Drew Grosof** has been awarded the Red Service Ribbon for two years of service to CAP.

**Celine Abassi** has been awarded the Cadet Recruiting Ribbon for recruiting two new members.

**Christain Tynan** has been awarded the Cadet Recruiting Ribbon for recruiting two new members.

*Cadet Matthew Buonomo is promoted to C/Amn by Maj Palys and C/Capt Testman.*

*Cadet Christain Tynan is promoted to C/SrA by Maj Palys and C/Capt Testman.*

*Cadet Devin Moore is promoted to C/MSgt by his father and C/Capt Testman.*

*Cadet LMargaret Palys is promoted to C/Maj by her father, Maj Palys (l.) and Maj McCandless (r.). Cadet Palys earned her promotion in January.*

*Cadet Megan Major is promoted to C/CMSgt by Maj McCandless and C/Capt Testman.*

*Cadet Carlos Aponte is promoted to C/SSgt by Maj Palys and C/Capt Testman.*

# March Promotions

The following members of the 143rd Composite Squadron were promoted in March:

**Megan Major** has completed the Dr Robert H Goddard Achievement and has been promoted to C/CMSgt.

**Devin Moore** has completed the Charles Lindbergh Achievement and has been promoted to C/MSgt.

**Carlos Aponte** has completed the Wright Brothers Achievement and has been promoted to C/SSgt.

**Christain Tynan** has completed the Mary Feik Achievement and has been promoted to C/SrA.

**Quadae Davis** has completed the Gen Hap Arnold Achievement and has been promoted to C/A1C.

**Matthew Buonomo** has completed the Gen J F Curry Achievement and has been promoted to C/Amn.

# Region Cadet Leadership School

The goal of the Region Cadet Leadership School program is to develop in cadets the Phase III leadership skills (indirect leadership) outlined in the cadet regulation's Leadership Expectations. The course includes 24 hours of instruction in Officership & Character, Communication Skills, Interpersonal Relations, Critical & Creative Thinking and Leadership Theory.

Because RCLS addresses skills relating to indirect leadership and company-grade cadet officer topics, participating cadets need to be cadet officers or cadets on the cusp of officership. Therefore, students attending RCLS should have completed an encampment and hold the grade of C/MSgt or higher.

There will be two RCLS's in the Northeast Region in 2012. The first will be held in PA. The second (RCLS-North) will be held at year-end,over the Christmas break. Information on the RCLS (South) in Pennsylvania is as follows:

Region Cadet Leadership School (RCLS-South) June 23-30, 2012
Cost: cost reduced to $150 The application process for basic (first time) cadets for RCLS is open NOW. Apply at http://www.pawgcts.org/apps


*2011 Northeast Region Cadet Leadership School (South), McGuire AFB.*

## 2012 Cadet Encampments

An encampment can be the most significant and worthwhile training experience of a CAP cadet's membership. Training is what the encampment is all about. To achieve the overall goals, a positive attitude is essential. Each staff member has an obligation to learn as much as possible and to offer the highest quality of training to others. The staff must always remember that their first duty is to the members of the basic flight.

Encampments available this year include:

**Pennsylvania Wing Encampment**
June 23-30, 2012
Location: Fort Indiantown Gap, PA
Cost: $200
http://www.pawgcts.org/apps

**Massachusetts Encampment**
July 22-29
DATES AND LOCATION STILL TENTATIVE
http://mawgcadets.org/encampment.html

**New Hampshire/Vermont Encampment**
July 20-29
Location: Norwich University - Northfield, VT
Cost: $275 plus possible out-of-state surcharge of up to an additional $275 (total cost between $275 and $550)
http://www.nhcapcadets.org/

**Maine Encampment**
August 16-25 (August 13-25 for staff)
Cost: $150
Location: Gilead, Maine
http://mainewingcadets.wordpress.com/

Transportation to and from encampments may be available. Please inform your chain of command as soon as you are interested in applying to an encampment.

Attending an encampment is required to apply to a National Cadet Special Activity and to complete the Mitchell Achievement. Cadets are encouraged to complete an encampment as soon as possible.

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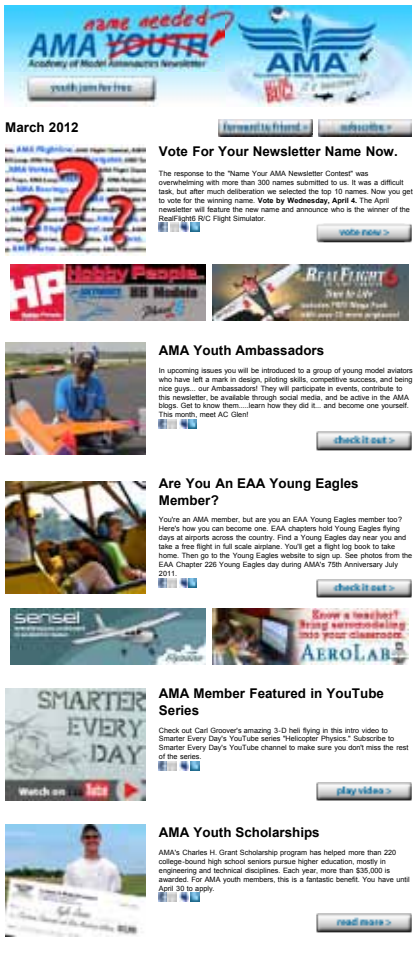


# CAP Conferences

## Classes, Workshops and Social Events

CAP Conferences are sponsored by Wings, Regions and CAP National Headquarters and offer training and workshops not usually available at the squadron level. Conferences bring together CAP members into direct contact with commanders at all levels as well as CAP National Staff.

Conference attendance is not only encouraged, but it is required to advance in the senior member professional development program. Conferences also offer CAP members the opportunity to interact on a social level.

Upcoming conference in our area:
**NYWG Conference 4-6 MAY 2012**
Location: Lake George, NY
www.nywg.cap.gov/Conference12/Conf12.htm

**CAP National Conference 22-25 AUG 2012**
Location: Baltimore, MD
www.capmembers.com/events/

**Northeat Region Conference 12-14 OCT 2012**
Location: Melville, NY
ner.cap.gov/conference/

**CTWG Conference 10 NOV 2012**
Location: Cromwell, CT

*Lt Col Levitt (r.) with John Desmarais, CAP National HQ Deputy Director of Operations at the MAWG Conference in Springfield, MA.*

# C/CMSgt Major named Air Force Sergeants Association Outstanding Cadet NCO for 2012

The Air Force Sergeants Association Award to Outstanding Squadron Cadet Noncommissioned Officer of the Year Award is an annual award established by the Air Force Sergeants Association to recognize the outstanding CAP cadet NCO in each squadron.

This year Maj McCandless, commander of the 143rd Composite Squadron has given this award to C/CMSgt Megan Major. Cadet Major joined CAP in September of 2010. She currently serves as a Cadet Flight Sergeant and as a mentor to the junior Cadet NCOs in the squadron.

*MSgt Levitt reads the Air Force NCO Creed to the assembly. The reading of the creed focused this special award on the role of the NCO not just in CAP or the Air Force, but in all services around the world and throughout history.*

*C/CMSgt Megan Major receives the Air Force Sergeants Association Outstanding Cadet NCO Award from USAF MSgt Richard Levitt (also known as CAP Lt Col Richard Levitt). MSgt Levitt made this special appearance in his USAF uniform to present this award.*

*The Air Force Association ribbon is authorized for wear on the CAP cadet uniform.*

The Air Force Sergeants Association (AFSA) is a federally chartered non-profit organization representing the professional and personal interests of active duty, retired and veteran Total Air Force and their families.

AFSA was founded and incorporated on May 3, 1961, and has evolved into an organization highly respected by congressional members and Department of Defense and Department of Veterans Affairs officials. AFSA works closely with the White House staff, Pentagon, and Air Force officials across the globe to ensure we adhere to the Preamble of "desire to assist in obtaining the highest caliber of men and women for our Air Force, our interest in the welfare of persons who served and are serving in the Air Force".

# USAF NCO Creed

***No one is more professional than I. I am a Noncommissioned Officer: a leader of people. I am proud of the Noncommissioned Officer Corps and will, at all times, conduct myself so as to bring credit upon it. I will not use my grade or position to attain profit or safety.***

***Competence is my watchword. I will strive to remain tactically and technically proficient. I will always be aware of my role as a Noncommissioned Officer. I will fulfill my responsibilities and display professionalism at all times. I will strive to know my people and use their skills to the maximum degree possible. I will always place their needs above my own and will communicate with my supervisor and my people and never leave them uninformed***

***I will exert every effort and risk any ridicule to successfully accomplish my assigned duties. I will not look at a person and see any race, creed, color, religion, sex, age, or national origin, for I will only see the person; nor will I ever show prejudice or bias. I will lead by example and will resort to disciplinary action only when necessary.***

***I will carry out the orders of my superiors to the best of ability and will always obey the decisions of my superiors. I will give all officers my maximum support to ensure mission accomplishments. I will earn their respect, obey their orders, and establish a high degree of integrity with them. I will exercise initiative in the absence of orders and will make decisive and accurate decisions. I will never compromise my integrity, nor my moral courage. I will not forget that I am a Professional, a Leader, but above all a Noncommissioned Officer.***

# Communications Training

## Cadets Learn To Use CAP Radios

The 143rd conducted a Basic Communications User Training (BCUT) class in March. The class consisted of a presentation that covered basic communications techniques including CAP radio channels, on-air etiquette, pro-words (such as *Roger* and *Over*), the Phonetic Alphabet, number pronunciation and other common radio procedures.

*Maj Joe Palys conducts the BCUT presentation.*

CAP Emergency Services Missions are very dependant on effective communications. Cadets can act as radio operators both at mission base as Mission Radio Operators (MRO) or Communications Unit Leader (CUL). As ground team members cadets can be assigned as the team radio operator and coordinate the ground team's activities with mission base.

After the presentation the cadets tested their new skills by practicing communicating with the squadron team radios. These radios are short range and intended to allow teams to separate in the field. Use of these radios is a key skill for ground team members.

*C/SSgt Veronica Ramirez practices using a CAP radio.*

CAP currently has two levels of communications classes; the Basic Communications User Training (BCUT) and the Advanced Communications User Training (ACUT). These classes will soon be replaced by a single Individual Communications User Training (ICUT) class.


*CAP Radios are described in detail during the training.*

# Training Leaders of Cadets

## CTWG Conducts First TLC Class Using The New Cirriculum

Training Leaders of Cadets is the premiere venue for Cadet Programs Officers to learn how to become better mentors of cadets and more effective managers of cadet squadrons. The 2-day course is a component of the Cadet Programs Officer Specialty Track in the Senior Member Professional Development Program.

Survey after survey, cadets tell us the #1 factor affecting cadet life is the quality of the seniors who lead them. That fact makes the solution to CAP's perennial cadet retention problem is straightforward: place a handful of outstanding Cadet Programs Officers in every unit. But how can we do that? Adult professional development is an essential part of the solution. Therefore, TLC's overall goal is to prepare seniors to lead cadets and administer the Cadet Program at the squadron level.

*Maj Art Dammers from the 103rd Composite Squadron gives a presentation on improving Squadron Activities.*

Connecticut Wing Cadet Programs staff took advantage of having the Camp Niantic facility available to CAP this month by hosting a Training Leaders of Cadets class. Ten CTWG senior members and one RIWG senior member spent two days immersed in classes that covered all aspects of CAP's Cadet Program.

Scheduling this class concurrent with the Cadet Great Start Weekend allowed the cadets to be a constant subject of the TLC discussions.

*Maj Tom Litwinczyk from CTWG Headquarters Staff lead a discussion on Military Skills.*

*1st Lt Ken Fortes from the Stratford Eagles Composite Squadron discussed Adolescent Development with the class.*

*TLC Class students posed for a group photo at the conclusion of the course.*

## Cadet Orientation Flights

Orientation Flights were again held in March at the Waterbury-Oxford Airport (OXC). Pilot Capt Dan Hanle flew six flights that included lessons on ground handling, preflight, take-off & landing, normal flight maneuvers, advanced flight maneuvers and use of instruments in flight.

*C/SrA Aidan Moran completed an orientation flight lesson on Normal Flight Maneuvers.*

*C/Amn Matthew Buonomo completed his first flight lesson on Ground handling, preflight, take-off & landing.*

*C/MSgt Devin Moore completed an orientation flight lesson on Ground handling, preflight, take-off & landing. This photo shows Cadet Moore learning to turn the aircraft.*

*Cadet Devin Moore checks the fuel levels during a pre-flight inspection.*

*C/Capt Midhat Mullai completed an orientation flight lesson on Weather. Cadet Mullai has now completed all five powered cadet orientation flight lessons.*

*Orientation Pilot Capt Dan Hanle explains the key flight instuments to C/Amn Buonomo before take off.*

*Cadet Zuleika Planas completed her first flight lesson on Ground handling, preflight, take-off & landing.*

*Preparing to land at Waterbury-Oxford Airport.*

*Landing on the 5800 foot runway at Waterbury-Oxford Airport.*

# 143rd Responds to a ELT Signal at Oxford Airport

While landing his private aircraft at the Waterbury-Oxford Airport (OXC), CAP Lt Col Tony Vallillo, CTWG Chief of Staff, picked up an ELT (Emergency Locator Transmitter) signal on his aircraft radio. After speaking with the OXC Tower, Lt Col Vallillo called Col Lloyd Sturges, CTWG Director of Operations to ask the Air Force Rescue Coordination Center to open a mission to locate and turn off the beacon.


*Cadets (l to r) C/MSgt Moore, C/TSgt Hinkson and C/MSgt Beliveau at the Key Air counter. Key Air, the FBO at OXC is always a gracious host whenever CAP is at the airport.*

A few hours later four senior members and seven cadets from the 143rd formed a ground team and tracked the signal to a hanger at the northwest corner of the airport. The signal was not easy to track because the metal hanger interferred with clear reception. Cadets used two ELT receivers to determine exactly which hanger the signal was coming from.

*Maj McCandless and C/MSgt Moore track the ELT signal.*

After failing to contact the manager of the hanger, the team was sent home and put on stand-by. The next morning three members of the ground team went to the airport and met a Connecticut Dept. of Transportation manager who was able to open the hanger, but the ELT signal was gone. Airport maintenance confirmed that the tenant of that particular hanger had arrived early in the morning, spent a few minutes in the hanger and left. The hanger manager confirmed that he left a message for the tenant the previous evening that CAP had determined an ELT signal was coming from his hanger.

# Space Weather

## Storms From The Sun

Space weather starts at the sun. It begins with an eruption such as a huge burst of light and radiation called a solar flare or a gigantic cloud of solar material called a coronal mass ejection (CME). But the effects of those eruptions happen at Earth, or at least near-Earth space. Scientists monitor several kinds of space "weather" events -- geomagnetic storms, solar radiation storms, and radio blackouts – all caused by these immense explosions on the sun.

### Geomagnetic Storms

One of the most common forms of space weather, a geomagnetic storm refers to any time Earth's magnetic environment, the magnetosphere, undergoes sudden and repeated change. This is a time when magnetic fields continually re-align and energy dances quickly from one area to another.

Geomagnetic storms occur when certain types of CMEs connect up with the outside of the magnetosphere for an extended period of time. The solar material in a CME travels with its own set of magnetic fields. If the fields point northward, they align with the magnetosphere's own fields and the energy and particles simply slide around Earth, causing little change. But if the magnetic fields point southward, in the opposite direction of Earth's fields, the effects can be dramatic. The sun's magnetic fields peel back the outermost layers of Earth's fields changing the whole shape of the magnetosphere. This is the initial phase of a geomagnetic storm.

The next phase, the main phase, can last hours to days, as charged particles sweeping into the magnetosphere accumulate more energy and more speed. These particles penetrate closer and closer to the planet. During this phase viewers on Earth may see bright aurora at lower latitudes than usual. The increase – and lower altitude – of radiation can also damage satellites traveling around Earth. The final stage of a geomagnetic storm lasts a few days as the magnetosphere returns to its original state.

*Auroras occur primarily near Earth's poles. They are the most common and the only visual result of space weather. This aurora image associated with solar flares and CMEs on February 23-24, 2012 was taken over Muonio, Finland before sunrise on February 27, 2012. Image Courtesy of Thomas Kast.*

Geomagnetic storms do not always require a CME. Mild storms can also be caused by something called a corotating interaction region (CIR). These intense magnetic regions form when high-speed solar winds overtake slower ones, thus creating complicated patterns of fluctuating magnetic fields. These, too, can interact with the edges of Earth's magnetosphere and create weak to moderate geomagnetic storms.

Geomagnetic storms are measured by ground-based instruments that observe how much the horizontal component of Earth's magnetic field varies. Based on this measurement, the storms are categorized from G1 (minor) to G5 (extreme). In the most extreme cases transformers in power grids may be damaged, spacecraft operation and satellite tracking can be hindered, high frequency radio propagation and satellite navigation systems can be blocked, and auroras may appear much further south than normal.

### Solar Radiation Storms

A solar radiation storm, which is also sometimes called a solar energetic particle (SEP) event, is much what it sounds like: an intense inflow of radiation from the sun. Both CME's and solar flares can carry such radiation, made up of protons and other charged particles. The radiation is blocked by the magnetosphere and atmosphere, so cannot reach humans on Earth. Such a storm could, however, harm humans traveling from Earth to the moon or Mars, though it has little to no effect on airplane passengers or astronauts within Earth's magnetosphere. Solar radiation storms can also disturb the regions through which high frequency radio communications travel. Therefore, during a solar radiation storm, airplanes traveling routes near the poles – which cannot use GPS, but rely exclusively on radio communications – may be re-routed.

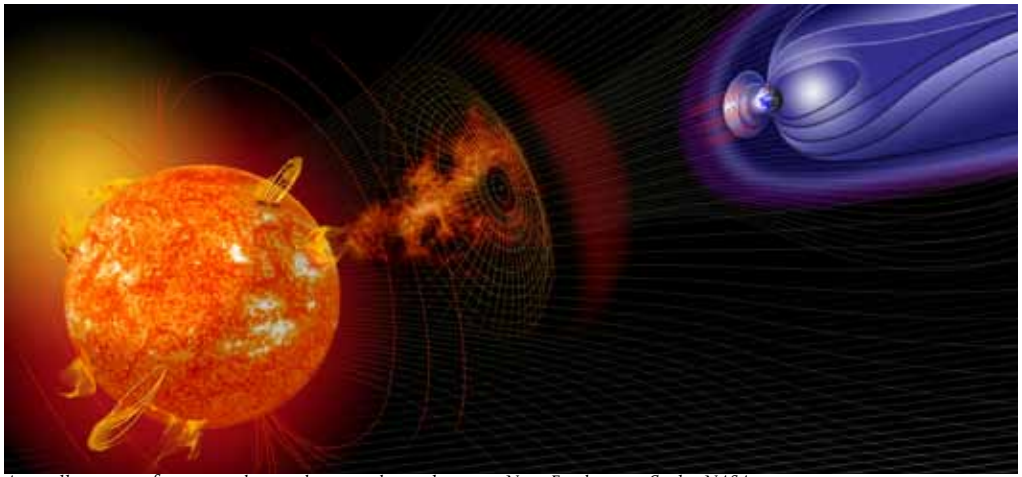
Solar radiation storms are rated on a scale from S1 (minor) to S5 (extreme), determined by how many very energetic, fast solar particles move through a given space in the atmosphere. At their most extreme, solar radiation storms can cause complete high frequency radio blackouts, damage to electronics, memory and imaging systems on satellites, and radiation poisoning to astronauts outside of Earth's magnetosphere.

### Radio Blackouts

Radio blackouts occur when the strong, sudden burst of x-rays from a solar flare hits Earth's atmosphere, jamming both high and low frequency radio signals. The X-rays disturb a layer of Earth's atmosphere known as the ionosphere, through which radio waves travel. The constant changes in the ionosphere change the paths of the radio waves as they move, thus degrading the information they carry. This affects both high and low frequency radio waves alike. The loss of low frequency radio communication causes GPS measurements to be off by feet to miles, and can also affect the applications that govern satellite positioning.

Radio blackouts are rated on a scale from R1 (minor) to R5 (extreme). The strongest radio blackouts can result in no radio communication and faulty GPS for hours at a time.

-Karen C. Fox, NASA Goddard Space Flight Center, Greenbelt, MD, taken from www.nasa.gov



*Artist illustration of events on the sun changing the conditions in Near-Earth space. Credit: NASA*

## CONVAIR XF-92A

*DAYTON, Ohio -- Convair XF-92A at the National Museum of the United States Air Force. (U.S. Air Force photo)*

This airplane was the world's first jet aircraft to fly using the radical delta-wing configuration pioneered by Germany's Dr. Alexander Lippisch during the 1930s.

In 1946 the United States approved the construction of a delta-wing airplane, designated the Convair Model 7002. First flown on Sept. 18, 1948, at Edwards Air Force Base, Calif., it was to serve as a flying prototype for the XF-92 fighter then being designed. The XF-92 program was canceled, however, without any XF-92 being built, and the USAF accepted the Model 7002 in June 1949 as the XF-92A. Flight tests demonstrated that the stability and control characteristics of the delta-wing concept were practical and much of the information was incorporated in the development of the supersonic F-102 and F-106 interceptors.

-Taken from www.nationalmuseum.af.mil


# Keeping Your Cool

Understanding The Symptoms of Anger

### Cool Rules

Ever notice how quickly people get angry? It seems like people can go from totally happy to totally ticked off in no time at all. In fact, the feeling of anger is actually a series of reactions that happen in just 1/30th of a second.

The amazing thing about anger is that it's not a basic emotion like, say, happiness. It is actually a secondary emotion and it is supposed to help keep you safe and protect you from danger — the ole' fight or flight thing! But if it gets out of hand or if you try to ignore it, it can lead to some serious issues. Here's how to break the chain.

Here is a simple way to remember how to deal with anger:

**A - Avoid.** Don't let your anger or other angry people control you.
**N - Never** use your body or voice to hurt others.
**G - Get away** from the situation so your feelings don't overwhelm you.
**E - Evaluate** your choices. Think before you react!
**R - Responsibility.** Remember, you are responsible for your choices. No one can make you angry, you allow yourself to become angry. And you can choose not to get angry too!

### Stop it at the first spark.

Lots of things can trigger anger, like losing a soccer game, having to deal with your bossy little sister, or your computer crashing when you're in the middle of IM'ing your pals or writing a school paper. The important thing is to figure out what is really making you angry. Is it the same thing every time or do different things bring you to the boiling point? If it is always the same situation, person, or thing, try to avoid it. And if you can't avoid them (cuz' you know your little sister isn't going anywhere), think of different ways you can keep from getting angry. Instead of hurling the computer out the window, think about how you avoid it crashing to begin with, like not having your email and a game going at the same time. If losing the soccer game has got your goat, use your anger as motivation to improve your skills.

### Hey, man! What's it all mean?

So, snaps for figuring out how to spot the things you know make you angry. But, your little sister is still driving you nuts. Since she's staying put, you've got to figure out a way to handle your anger that won't make things worse. This brings us to the second link in the chain. To avoid it, all you need to do is try to look at things from her point of view — you're older and she wants to hang with you because she thinks you're cool. With that in mind, it's easier to keep your cool. Spend some time just with her so that she won't need to stalk you when all your friends are over. You might even find out that she's not half bad. By changing the way you deal with her and understanding her point of view, you can break the anger chain before you even notice you're mad!

### Blood's a boilin'

Well, ok, but your still furious. You've tried to change your reactions to the things that you know make you crazy, you're busy looking at everything from everyone else's point of view, but you can still feel your temperature is rising. Well, that's you're body responding to your feelings. You get hot and your muscles might start to tighten and you start breathing harder. Don't let it get the best of you — there are things you can do to stay in control. Take some deep breaths, focus on relaxing your muscles, and s-l-o-w down!

### Talkin' to yourself?

The next link in the chain comes when you catch yourself thinking or saying something in reaction to what's happening to make you mad. We've all done it — we think things like "He's so stupid" or say to a friend "You're always so mean!" before we can stop ourselves. If you catch yourself doing this, take a minute to think. Try to remember that your dealing with a person who may not know how you feel. Stay calm. Lashing back won't get you anywhere. So try to talk to your friend, let him know he hurt your feelings, and then try to move on.

What you've got to do with it

Image of Kristie walking a dogThe way you feel in a situation depends on your background — you may be used to people keeping their feelings in and not talking about them, or you may be used to people exploding and yelling when they are angry. Neither of these reactions is necessarily good. People who bottle up their feelings can end up exploding later, or become depressed. People who vent and yell just tend to keep the anger cycle in motion. The trick is to deal with your anger so that you can learn how to not get riled up in the first place. Try these suggestions to help you stay calm, cool, and collected.

- Go for a walk
- Write down your feelings on a piece of paper, then tear it up and throw it away.
- Face the mirror and practice talking to the person that you are mad at.

**Here is a simple way to remember how to deal with anger:**

**A**void. Don't let your anger or other angry people control you.

**N**ever use your body or voice to hurt others.

**G**et away from the situation so your feelings don't overwhelmn you.

**E**valuate your choices. Think before you react!

**R**esponsibility. Remember, you are responsible for your choices. No one can *make* you angry, you *allow* yourself to become angry. And you can choose not to get angry too!

### That's the way the story ends...

Isn't it amazing how many things come in between the first spark and being really mad? The whole chain happens so fast because we train ourselves to react in a certain way without even knowing we're doing it. But if you learn to recognize the steps in between, you can break the chain before you lose your cool. No matter how hard you try, you won't be able to avoid getting angry in every situation. You just have to decide the best way to respond. Anger doesn't have to be negative — if you handle it the right way it can actually clue you in to dangerous situations and make you a stronger person.

-Taken from www.bam.gov

# Hand and Power Tool Safety

## Get The Job Done and Stay Safe

Tools are such a common part of our lives that it is difficult to remember that they may pose hazards. All tools are manufactured with safety in mind but, tragically, a serious accident often occurs before steps are taken to search out and avoid or eliminate tool-related hazards.

In the process of removing or avoiding the hazards, everyone must learn to recognize the hazards associated with the different types of tools and the safety precautions necessary to prevent those hazards.

**HAND TOOLS**

Hand tools are non-powered. They include anything from axes to wrenches. The greatest hazards posed by hand tools result from misuse and improper maintenance.

Saw blades, knives, or other tools should be directed away from aisle areas and other people working in close proximity. Knives and scissors must be sharp. Dull tools can be more hazardous than sharp ones.

Appropriate personal protective equipment, e.g., safety goggles, gloves, etc., should be worn due to hazards that may be encountered while using portable power tools and hand tools.

Safety requires that floors be kept as clean and dry as possible to prevent accidental slips with or around dangerous hand tools.

Around flammable substances, sparks produced by iron and steel hand tools can be a dangerous ignition source. Where this hazard exists, spark-resistant tools made from brass, plastic, aluminum, or wood will provide for safety.

**POWER TOOLS**

Power tools can be hazardous when improperly used. There are several types of power tools, based on the power source they use: electric, pneumatic, liquid fuel, hydraulic, and powder-actuated.

Users should understand the potential hazards as well as the safety precautions to prevent those hazards from occurring. The following general precautions should be observed by power tool users:

- Never carry a tool by the cord or hose.
- Never yank the cord or the hose to disconnect it from the receptacle.

- Keep cords and hoses away from heat, oil, and sharp edges.
- Disconnect tools when not in use, before servicing, and when changing accessories such as blades, bits and cutters.
- All observers should be kept at a safe distance away from the work area.
- Secure work with clamps or a vise, freeing both hands to operate the tool.
- Avoid accidental starting. The worker should not hold a finger on the switch button while carrying a plugged-in tool.
- Tools should be maintained with care. They should be kept sharp and clean for the best performance. Follow instructions in the user's manual for lubricating and changing accessories.
- Be sure to keep good footing and maintain good balance.
- The proper apparel should be worn. Loose clothing, ties, or jewelry can become caught in moving parts.
- All portable electric tools that are damaged shall be re moved from use and tagged "Do Not Use."

**GUARDS**

Guards, as necessary, should be provided to protect the operator and others from the point of operation, in-running nip points, rotating parts, and flying chips and sparks.

Safety guards must never be removed when a tool is being used. For example, portable circular saws must be equipped with guards. An upper guard must cover the entire blade of the saw. A retractable lower guard must cover the teeth of the saw, except when it makes contact with the work material. The lower guard must automatically return to the covering position when the tool is withdrawn from the work.

**ELECTRIC TOOLS**

Among the chief hazards of electric-powered tools are burns and slight shocks which can lead to injuries or even heart failure. Under certain conditions, even a small amount of current can result in fibrillation of the heart and eventual death. A shock also can cause the user to fall off a ladder or other elevated work surface.

To protect the user from shock, tools must either have a three-wire cord with ground and be grounded, be double insulated, or be powered by a low-voltage isolation transformer. Three-wire cords contain two current-carrying conductors and a grounding conductor. One end of the grounding conductor connects to the tool's metal housing. The other end is grounded through a prong on the plug. Anytime an adapter is used to accommodate a two-hole receptacle, the adapter wire must be attached to a known ground. The third prong should never be removed from the plug.

Double insulation is more convenient. The user and the tools are protected in two ways: by normal insulation on the wires inside, and by a housing that cannot conduct electricity to the operator in the event of a malfunction.

These general practices should be followed when using electric tools:

- Electric tools should be operated within their design limitations.
- Gloves and safety footwear are recommended during use of electric tools.
- When not in use, tools should be stored in a dry place.
- Electric tools should not be used in damp or wet locations.
- Work areas should be well lighted.

**GENERAL SAFETY PRECAUTIONS**

Employees who use hand and power tools and who are exposed to the hazards of falling, flying, abrasive and splashing objects, or exposed to harmful dusts, fumes, mists, vapors, or gases must be provided with the particular personal equipment necessary to protect them from the hazard.

All hazards involved in the use of power tools can be prevented by following five basic safety rules:

- Keep all tools in good condition with regular maintenance.
- Use the right tool for the job.
- Examine each tool for damage before use.
- Operate according to the manufacturer's instructions.
- Provide and use the proper protective equipment.

Employees and employers have a responsibility to work together to establish safe working procedures. If a hazardous situation is encountered, it should be brought to the attention of the proper individual immediately.

-Taken from www.osha.gov